Amendments to the Claims:

1. (Previously Presented) A polycrystalline silicon film, the polycrystalline film containing Ni atoms of which density ranges $2x10^{17}$ to $5x10^{19}$atoms/cm^3 on average, and an electrical conductivity activation energy between 0.52eV and 0.71eV, the polycrystalline silicon film comprising a plurality of needle-shaped silicon crystallites.

2. (Currently Amended) The polycrystalline silicon film according to claim 1, wherein the polycrystalline silicon film is formed by crystallizing an amorphous silicon film containing Ni atoms ~~properly~~ by ~~means of carrying out~~ thermal treatment and applying an electric field.

3. (Previously Presented) A polycrystalline silicon film, the polycrystalline film containing Ni atoms of which density ranges $2x10^{17}$ to $5x10^{19}$atoms/cm^3, and an electrical conductivity activation energy between 0.52eV and 0.71eV, the polycrystalline silicon film comprising a plurality of needle-shaped silicon crystallites, the polycrystalline silicon film on an insulating substrate.

4. (Original) The polycrystalline silicon film according to claim 3, wherein a buffer layer is formed between the insulating substrate and the polycrystalline silicon film.

5. (Currently Amended) The polycrystalline silicon film according to claim 3, wherein the polycrystalline silicon film is formed by crystallizing an amorphous silicon film containing Ni atoms ~~properly~~ by ~~means of carrying out~~ thermal treatment and applying an electric field.

6. (Previously Presented) A polycrystalline silicon film, the polycrystalline film containing metal of which density ranges $2x10^{17}$ to $5x10^{19}$atoms/cm^3, and an electrical conductivity activation energy between 0.52eV and 0.71eV, the polycrystalline silicon film comprising a plurality of needle-shaped silicon crystallites wherein the metal is a catalyst for metal induced crystallization of silicon.

7. (Currently Amended) The polycrystalline silicon film according to claim 6, wherein the polycrystalline silicon film is formed by crystallizing an amorphous silicon film containing the metal by ~~means of carrying out~~ thermal treatment and applying an electric field.

8. (Cancelled)

9. (Amended) A polycrystalline silicon film, the polycrystalline film containing metal of which density ranges $2x10^{17}$ to $5x10^{19}$atoms/cm^3, and an electrical conductivity activation energy between 0.52eV and 0.71eV, the polycrystalline silicon film comprising a plurality of needle-shaped silicon crystallites wherein the metal is a catalyst for metal induced crystallization of amorphous silicon.